

REMARKS/ARGUMENTS

Claims 1-12 stand in the present application, claims 11 and 12 having been added. Reconsideration and favorable action is respectfully requested in view of the above amendments and the following remarks.

In the Office Action, the Examiner has rejected claims 1-10 under 35 U.S.C. § 103 as being unpatentable over Wolf et al. (hereinafter "Wolf"). Applicant respectfully traverses the Examiner's rejection of the claims.

Applicant respectfully submits that the Examiner is improperly reading more into the Wolf reference than is actually disclosed. Wolf discloses a system in which the value derived for the error perceived by the viewer depends on the degree of synchronisation error. Synchronisation error is simply the amount of time (either lead or lag) by which the audio and video components of an audio-visual sequence are out of temporal alignment.

However, unlike Applicant's invention, Wolf does not disclose any analysis of the individual audio and visual signals' content for the presence of features indicative of how perceptually significant such synchronisation errors may be. In practice, the significance of synchronisation errors depends on the nature of the audio and visual elements in the original signal, and not just on the degree of synchronisation between them. To take a specific example, a given synchronisation error in a "talking head" situation would be much more noticeable to a user than if the speech was associated with a "voice over" in which the speaker was not visible.

Wolf merely measures this synchronisation error and translates this directly to a measure of perceptual error. There is no variation in the value of the perceived

subjective error so determined, as is generated in the present application as a result of the analysis step. Thus, Wolf would not analyze or even account for any differentiation in the greater noticeability of a "talking head" synchronisation error as compared to a "voice over" synchronisation error.

The key point is to recognize that Wolf makes no allowance for the significance of the type of image or sound being transmitted in determining what the perceptual significance of the synchronisation error is, but derives perceptual significance as a function purely of synchronisation error and no other variable.

The argument raised in part b (pages 3-4) of the Office Action misses the point. The Examiner suggests that analysis and measurement of the audio and visual synchronisation could not be done without initially identifying the characteristics the audio and visual cues. To the contrary, it should be understood that a raw value for synchronisation error, as used by Wolf, can be derived simply by using references embedded in the two signals.

Thus, it should be clear from the above that Wolf et al. does not teach or suggest Applicant's invention as recited in the present claims. More particularly, Wolf does not teach or suggest (1) "analyzing the audio and visual elements of the stimulus for the presence of characteristic features indicative of synchronisation error," nor (2) "modifying the measure of subjective quality derived from the synchronisation errors and characteristics according to whether the characteristic features are present" as required by the present claims. Moreover, Applicant has added new independent claims 11 and 12 which depend respectively from independent claims 1 and 6 and which specifically recite that the audio-visual stimulus is a "talking head." This feature

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Appl. No. 09/701,514
September 15, 2004


of Applicant's invention is clearly disclosed at, *inter alia*, page 8, line 27 through page 9, line 23.

Therefore, in view of the above amendments and remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-12, now standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

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